James S. (Jay) Famiglietti

NASA Jet Propulsion Laboratory
California Institute of Technology
4800 Oak Grove Drive, M/S 300-329
Pasadena, CA 91109-8099
Office: (818) 354-0052
james.famiglietti@jpl.nasa.gov

Department of Earth System Science
University of California, Irvine
240K Rowland Hall
Irvine, CA 92697-3100
Office: (949) 824-9434
jfamigli@uci.edu

Websites:

http://science.jpl.nasa.gov/people/famiglietti
http://ucchm.org (inactive since June 2014)
http://twitter.com/jayfamiglietti
http://jayfamiglietti.com

Education:

1992	Ph.D.	Princeton University, Civil Engineering (Water Resources Program)
1988	M.A.	Princeton University, Civil Engineering (Water Resources Program)
1986	M.S.	University of Arizona, Hydrology
1982	B.S.	Tufts University, Geology

Professional Appointments (since 1992):

NASA Jet Propulsion Laboratory, California Institute of Technology

2014-present	Senior Water Cycle Scientist and JPL Water Initiative Leader

California State Water Boards, Appointed by California Governor Jerry Brown

2013-2017	Santa Ana Regional Water Quality Control Board

Stanford University, Department of Civil and Environmental Engineering

2010	Shimizu Visiting Professorship, Winter Quarter

University of California, Irvine, Department of Earth System Science and Department of Civil and Environmental Engineering

2009-2014	Founding Director, University of California Center for Hydrologic Modeling
2008-2009	Director, Institute of Geophysics and Planetary Physics, U. C. Irvine
2006-present	Professor (Leave of Absence effective July 1, 2014)
2005-2006	Vice Chair for Graduate Studies (Earth System Science)
2003-2005	Graduate Advisor (Earth System Science)
2001-2006	Associate Professor

University of Texas at Austin, Department of Geological Sciences

2001	Associate Director, Environmental Science Institute
2000-2001	Associate Professor
1994-2000	Assistant Professor

National Center for Atmospheric Research, Climate and Global Dynamics Division

1994-1995	Visiting Scientist (Summers)
1993	Postdoctoral Research Fellow, Climate System Modeling Program

Princeton University, Department of Civil Engineering and Operations Research

1992-1993	Visiting Postdoctoral Fellow

Academic Supervisors:

David Schimel, NCAR, Postdoctoral
Eric Wood, Princeton University, Ph.D. and Postdoctoral
Soroosh Sorooshian, University of Arizona, M.S.

Awards, Honors and Recognition:

2014	Orange County's 100 Most Influential People of 2014, Orange County Register
	Invited cover, Science Magazine, September 26, 2014
	Fellow, Geological Society of America
	David Keith Todd Distinguished Lecturer, Groundwater Resources Association of California
	Editor's Choice, Science Magazine, for Castle et al., 2014, August 14, 2014
	2013 Editor's Choice Award, Water Resources Research, for Voss et al., 2013
2012	Fellow, American Geophysical Union
	Birdsall-Dreiss Distinguished Lecturer, Geological Society of America
	Action Figure, Circle of Blue
2010	Top 10 Earth Science story of 2010, Science News, for Syed et al., 2010, PNAS
2005	Outstanding Contributions to Undergraduate Education
	University of California, Irvine
1998	Dean's Fellow, University of Texas at Austin
1996	NASA New Investigator Award
1996	Achievement Award for New Scholars, Conference of Southern Graduate Schools
	NSF Presidential Faculty Fellow Finalist
1992-1993	UCAR Climate System Modeling Program Postdoctoral Fellowship

Publications (Articles):

Web of Science (formerly ISI): Famiglietti J*
Google Scholar: Famiglietti JS

In preparation:

Chandanpurkar, H. A., J. T. Reager, J. S. Famiglietti, D. P. Chambers and T. H. Syed, Global freshwater discharge to the oceans from nearly two decades of ocean satellite observation

Famiglietti, J. S., Groundwater Depletion, Sci. Am.

Famiglietti, J. S., J. T. Reager, D. P. Chambers, M.-H. Lo, W.-Y. Wu, T. Syed, I. Velicogna and S. Nerem, Global ocean-land water mass exchanges indicate changing hydrologic cycle strength,

Kim, H, S. Kim, J. Famiglietti and J.-Y. Yu, The changing drivers of Amazon drought

Li, Bailing, M. Rodell and J. S. Famiglietti, Groundwater Variability across Scales in the Central and Northeastern U.S.

Liu, H., C. de Linage, J. T. Reager, S. Swenson and J. S. Famiglietti, Detection of Water Storage Variations in the World's Largest Lakes Using GRACE

Liu, Z., C. H. David, H. Kim, G. Goteti and J. S. Famiglietti, A National-Scale, Catchment-Based Land Surface Modeling Framework with an Explicit Representation of River Network Dynamics

Reager, J. T., E. Swails, J. T. Randerson, D. Lawrence and J. S. Famiglietti, Assessing Links Between Water and Carbon Storage in Indonesian Peatlands Using Data from the Gravity Recovery and Climate Experiment

Richey, A. S., B. F. Thomas, M.-H. Lo, J. T. Reager, K. A. Voss, M. Rodell and J. S. Famiglietti, Quantifying renewable groundwater stress with GRACE

Richey, A. S., B. F. Thomas, M.-H. Lo and J. S. Famiglietti, Uncertainty in Global Groundwater Storage Estimates in a Total Groundwater Stress Framework

Solander, K. C., J. T. Reager, B. F. Thomas, C. H. David and J. S. Famiglietti, Simulating the human operator: the development of an optimal complexity, climate change-adaptive reservoir management model for a GCM

In review or revision:

Anderson, R. G., M.-H. Lo, S. Swenson, J. S. Famiglietti, Q. Tang, T. H. Skaggs, Y.-H. Lin and R.-J. Lin, Parameterization of anthropogenic water fluxes in land surface models using satellite-based estimates of evapotranspiration and groundwater changes, in review, J. Hydrometeorology

Bierkens, M., V. Bell, P. Burek, N. Chaney, L. Condon, C. David, P. Doell, N. Droest, J. Famiglietti, M. Florke, D. Gochis, P. Houser, R. Hut, J. Keune, S. Kollett, R. Maxwell, J. Reager, L. Samaniego, E. Sudicky, E. Sutanujaja, N. ven de Giesen, H. Winsemius, E. Wood, Hyper-Resolution global hydrological modeling: what's next? Hydrological Processes, revised

David, C. H., J. S. Famiglietti, Z.L. Yang and V. Eijkkhout, Near-ideal speedup with the Muskingum method using a transboundary approach and a large sub-basins approximation, in review, Water Resour. Res.

Kim, B., B. F. Sanders, J. S. Famiglietti and V. Guinot, Anisotropic blockage effects in urban flooding: laboratory validation and modeling with porous shallow-water equations, J. Hydrol., revised

L'Ecuyer, T., H. Beaudoing, M. Rodell, W. Olson, B. Lin, S. Kato, C. Clayson, E. Wood, E. Clark, R. Adler, G. Huffman, M. Bosilovich, F. Robertson, J. S. Famiglietti, P. R. Houser, D. Chambers, E. Fetzer, X. Gao, G. Gu, K. Hilburn, D. P. Lettenmaier, W. T. Liu, C. A. Schlosser, and J. Sheffield, The Observed State of the Energy Budget in the Early 21st Century, in revision, J. Climate.

Rodell, M., H. K. Beaudoing, T. S. L'Ecuyer, W. S. Olson, J. S. Famiglietti, P. R. Houser, R. Adler, M. G. Bosilovich, C. A. Clayson, D. P. Chambers; E. Clark, E. J. Fetzer; X. Gao. G., K. Hilburn, G. J. Huffman, D. P. Lettenmaier, W. T. Liu, C. A. Schlosser, J. Sheffield, E. F. Wood, The Observed State of the Water Cycle in the Early 21st Century, in revision, J. Climate.

Singh, R., J. T. Reager N. L. Miller and J. S. Famiglietti, Towards hyper-resolution land surface modeling: The effects of fine-scale model grid resolution on CLM4.0 simulations in the Southwestern US, in review, Wat. Resour. Res.

Sproles, E., S. G. Leibowitz, J. T. Reager, P. J. Wigington, J. S. Famiglietti and S. D. Patil, GRACE storage-streamflow hystereses reveals the dynamics of regional watersheds, in review, Hydrol. Earth Sys. Sci

Thomas, B. F. and J. S. Famiglietti, Sustainable groundwater management in the arid southwestern US: Coachella Valley, CA, in review

Published:

2015

Billah, M. M., J. L. Goodall, U. Narayan, J. T. Reager, V. Lakshmi, and J. S. Famiglietti, Evaluation of regional-scale evapotranspiration estimates using GRACE observations of anomaly in terrestrial water storage: An application to South Carolina, USA, accepted, J Hydrol.

Thomas, B. F., R. M. Vogel and J. S. Famiglietti, Objective hydrograph baseflow recession analysis, J. Hydrol., accepted

2014

Bijoor, N., D. E. Pataki, D. Haaver, L. Litvak and J. Famiglietti, A comparative study of the water budgets of lawns under three management scenarios, Urban Ecosyst., 17 (4), 1095-1117, DOI 10.1007/s11252-014-0361-4

Castle, S., B. F. Thomas, J. T. Reager, S. C. Swenson, M. Rodell, and J. S. Famiglietti, Groundwater Depletion During Drought Threatens Future Water Security of the Colorado River Basin, Geophys. Res. Lett., 41, 5904–5911, doi:10.1002/2014GL061055. (Editor's Choice selection, Science Magazine, August 14, 2014)

de Linage, C., J. S. Famiglietti and J. T. Randerson, Statistical prediction of terrestrial water storage changes in the Amazon basin using Tropical Pacific and North Atlantic sea surface temperatures, Hydrol. Earth Sys. Sci., 18, 2089–2102, www.hydrol-earth-syst-sci.net/18/2089/2014/ doi:10.5194/hess-18-2089-2014

Famiglietti, J. S., The global groundwater crisis, Nature Climate Change, 4, 945-948.

Forootan**,** E., R. Rietbroek**,** J. Kusche**,** M. A. Shari, J. L. Awange**,** M. Schmidt**,** P. Omondi**,** J. Famiglietti**,** Separation of large scale water storage patterns over Iran using GRACE, altimetry and hydrological data, Remote Sensing of Environment, 140, 580-595, http://dx.doi.org/10.1016/j.rse.2013.09.025

Kim, B., B. F. Sanders, K. Han, Y. Kim and J. S. Famiglietti, Calibration of Stormwater Management Model Using Flood Extent Data, Proceedings of the ICE - Water Management, 167 (1), 1—29, DOI: 10.1680/wama.12.00051

Kim, B., B. F. Sanders, J. E. Schubert and J. S. Famiglietti, Mesh type tradeoffs in 2D hydrodynamic modeling of flooding with a Godunov-based flow solver, Adv. Water Res., 68, 42-61, http://dx.doi.org/10.1016/j.advwatres.2014.02.013

Reager, J.T., B. F. Thomas and J. S. Famiglietti, River basin flood potential inferred using GRACE gravity observations at several months lead-time, Nature Geoscience, published online, 6 July 2014, 7, 588–592, doi:10.1038/ngeo2203

Rodell, M., D. P. Chambers and J. S. Famiglietti, [Global climate] Groundwater and terrestrial water storage, [in "State of the Climate in 2013"]. Bull. Amer. Meteor. Soc. 95(7), S24-S25.

Syed, T. H., P. J. Webster and J. S. Famiglietti, Assessing Interannual Variability of Evapotranspiration over the Ganga River Basin Using Water Balance Computations, Water Resour. Res., 50 (3), 2551–2565, DOI: 10.1002/2013WR013518

Thomas, A., J. T. Reager, J. S. Famiglietti and M. Rodell, A GRACE-based water storage deficit approach for hydrological drought characterization, Geophys. Res. Lett., 41(5), 1537–1545, doi:10.1002/2014GL059323.

2013

Chen, Y., I. Velicogna, J. S. Famiglietti and J. Randerson, Satellite observations of terrestrial water storage provide early warning information about drought and fire season severity in the Amazon, J. Geophys. Res. Biogeosciences, 118 (2), 495-504, DOI: 10.1002/jgrg.20046

David, C. H., Z.-L. Yang and J. S. Famiglietti, Quantification of the upstream-to-downstream influence in the Muskingum method, and implications for speedup in parallel computations of river flow, Wat. Resour. Res., 49 (5), 2783-2800, DOI: 10.1002/wrcr.20250

De Linage, C., H. Kim, J. S. Famiglietti and J.-Y. Yu, Impact of Pacific and Atlantic sea surface temperatures on interannual and decadal variations of GRACE land water storage in tropical South America, J. Geophys. Res., 118 (19), 10811-10829, DOI: 10.1002/jgrd.50820

Famiglietti, J., A. Jiminez-Bacardi and D. Wehrenfennig, Climate Science and Peace in the Middle East, Peace Review, 25 (4), 534-540, **doi:**10.1080/10402659.2013.846179

Famiglietti, J. S., and M. Rodell, Water in the Balance, Science, 340, 1300-1301.

Lo, M.-H., and J. S. Famiglietti, Irrigation in California's Central Valley Strengthens the Southwestern U. S. Water Cycle, Geophys. Res. Lett. 40(2), Pages: 301–306, DOI: 10.1002/grl.50108

Lo, M.-H., C.-M. Wu, H.-Y. Ma and J. S. Famiglietti, The Response of Coastal Stratocumulus Clouds to Agricultural Irrigation in California, J. Geophys. Res., 118 (D12), 6044-6051, DOI: 10.1002/jgrd.50387

Ouellette, K. J., C R. de Linage and J. S. Famiglietti, Estimating snow water equivalent from GPS vertical site-position observations in the western United States, Wat. Resour. Res., 49 (5), 2508-2518, DOI: 10.1002/wrcr.20173

Reager, J. T. and J. S. Famiglietti, Characteristic mega-basin water storage behavior using GRACE, Wat. Resour. Res., 49(6), 3314–3329, doi:10.1002/wrcr.20264

Rodell, M., D. P. Chambers and J. S. Famiglietti, [Global Climate] Terrestrial Water Storage [in "State of the Climate in 2012"]. Bull. Amer. Meteor. Soc., 94 (8), S24.

Saraswat, P., T. H. Syed, J. S. Famiglietti, E. J. Fielding, R. Crippen and N. Gupta, Recent Changes in the Snout Position and Surface Velocity of Gangotri Glacier Observed from Space, International Journal of Remote Sensing, 34(24), 8653–8668, http://dx.doi.org/10.1080/01431161.2013.845923

Taylor, R. G., B. Scanlon, P. Döll, M. Rodell, R. van Beek, Y. Wada, L. Longuevergne, J. S. Famiglietti, M. LeBlanc, M. Edmunds, L. Konikow, J. Chen, M. Taniguchi, T. Green, M. Bierkens, Y. Fan, R. Maxwell, Y. Yechieli, J. Gurdak, D. Allen, M. Shamsudduha, K. Hiscock, P. Yeh, A. MacDonald, I. Holman and H. Treidel, Groundwater and climate change, Nature Climate Change, 3 (4), 322-329. doi:10.1038/nclimate174

Thomas, B. F., R. M. Vogel, C. N. Kroll and J. S. Famiglietti, Estimation of the baseflow recession constant under human interference, Water Resour. Res., 49(11) 7366-7379. DOI: 10.1002/wrcr.20532

Voss, K. A., J. S. Famiglietti, M. Lo, C. R. de Linage, M. Rodell and S. C. Swenson, Groundwater depletion in the Middle East from GRACE with Implications for Transboundary Water Management in the Tigris-Euphrates-Western Iran Region, Wat. Resour. Res., 49(2), 904-914, DOI: 10.1002/wrcr.20078 (WRR Editor's Choice Award 2013)

2012

Achberger, C.; Ackerman, S. A.; Ahmed, Farid H.; et al., State of the Climate in 2011, Special Supplement to the Bulletin of the American Meteorological Society, 93(7), July 2012. *Contribution: Rodell, M., D. Chambers and J. S. Famiglietti, [Global Climate] Groundwater and Terrestrial Water Storage, [in "State of the Climate 2011"] Bull. Amer. Meteor. Soc., 93 (7), S29 – S30.*

Anderson, R., M. Lo and J. S. Famiglietti, Assessing surface irrigation water use using remotely-sensed groundwater, evapotranspiration, and precipitation, Geophys. Res. Lett., 39, 16, doi:10.1029/2012GL052400, 2012

Crossley, D., C. de Linage, J. Hinderer, J. P. Boy and J. S. Famiglietti, A comparison of the gravity field over Central Europe from superconducting gravimeters, GRACE, and global hydrology models, using EOF analysis, Geophysical Journal International, 189 (2), 877-897, DOI: 10.1111/j.1365-246X.2012.05404.x

Phillips, T., R. S. Nerem, B. Fox-Kemper, J. S. Famiglietti and B. Rajagopalan, The influence of ENSO on global terrestrial water storage using GRACE, Geophys. Res. Lett., Geophys. Res. Lett., 39, L16705 DOI: 10.1029/2012GL052495

Wood, E. F., J. K. Roundy, T J. Troy, R. van Beek, M. Bierkens, E. Blyth, A. de Roo, P. Döll, M. Ek, J. Famiglietti, D. Gochis, N. van de Giesen, P. Houser, P. Jaffe, S. Kollet, B. Lehner, D. P. Lettenmaier, C. Peters-Lidard, M. Sivapalan, J. Sheffield, A. Wade and P. Whitehead, Reply to comment by Keith J. Beven and Hanna L. Cloke on "Hyper-Resolution Global Land Surface Modeling: Meeting a Grand Challenge for Monitoring Earth's Terrestrial Water," Wat. Resour. Res., 48, W01802, doi: 10.1029/2011WR011202

2011

Achberger, C.; Ackerman, S. A.; Ahmed, Farid H.; et al., State of the Climate in 2010, Bull. Amer. Met. Soc. 92(6), July 2011. Contributions: *Rodell, M., D.P. Chambers, and J.S. Famiglietti, 2011, Groundwater and Terrestrial Water Storage [in "State of the Climate in 2010"] Bull. Amer. Meteor. Soc., 92 (6), S49-S52. Rodell, M., J.S. Famiglietti, D.P. Chambers, and J. Wahr, 2011, Contributions of GRACE to Climate Monitoring [in "State of the Climate in 2010"] Bull. Amer. Meteor. Soc., 92 (6), S50-S51.*

Famiglietti, J. S., M. Lo, S. L. Ho, K. J. Anderson, J. Bethune, T. H. Syed, S. C. Swenson, C. R. de Linage and M. Rodell, Satellites Measure Recent Rates of Groundwater Depletion in California's Central Valley, Geophys. Res. Lett., 38, L03403, doi:10.1029/2010GL046442

Frappart, F., G. Ramillien and J. S. Famiglietti, Water balance of the Arctic drainage system using GRACE gravimetry products, International Journal of Remote Sensing, 32(2), 431-453, doi: 10.1080/01431160903474954

Lo. M. and J. S. Famiglietti, Precipitation Response to Land Subsurface Hydrologic Processes in AGCM Simulations, J. Geophys. Res., 116, D05107, doi:10.1029/2010JD015134.

Rodell, M., E. B. McWilliams, J. S. Famiglietti, H. K. Beaudoing, and J. Nigro, Estimating evapotranspiration using an observation based terrestrial water budget, Hydrological Processes, 25, 4082–4092, DOI: 10.1002/hyp.8369

Wang, X., C. de Linage, J. Famiglietti and C. S. Zender, Gravity Recovery and Climate Experiment (GRACE) detection of water storage changes in the Three Gorges Reservoir of China and comparison with in situ measurements, Wat. Resour. Res., 47, W12502, doi:10.1029/2011WR010534

Wood, E. F., J. K. Roundy, T J. Troy, R. van Beek, M. Bierkens, E. Blyth, A. de Roo, P. Döll, M. Ek, J. Famiglietti, D. Gochis, N. van de Giesen, P. Houser, P. Jaffe, S. Kollet, B. Lehner, D. P. Lettenmaier, C. Peters-Lidard, M. Sivapalan, J. Sheffield, A. Wade and P. Whitehead, Hyper-Resolution Global Land Surface Modeling: Meeting a Grand Challenge for Monitoring Earth's Terrestrial Water, Wat. Resour. Res., 47, W05301, doi:10.1029/2010WR010090

2010

Lo, M. and J. S. Famiglietti, Effect of water table dynamics on land surface hydrologic memory, J. Geophys. Res., 115, D22118, doi:10.1029/2010JD014191.

Lo, M., J. S. Famiglietti, P. J.-F. Yeh, and T. H. Syed, Improving parameter estimation and water table depth simulation in a land surface model using GRACE water storage and estimated base flow data, Water Resour. Res., 46, W05517, doi:10.1029/2009WR007855.

Syed, T. H., J. S. Famiglietti, D. Chambers, J. Willis, K. Hilburn, Satellite-Based Global Ocean Mass Balance Estimates of Interannual Variability and Emerging Trends in Continental Freshwater Discharge, Proc. Nat. Acad. Sci., 107 (42) 17916-17921; published ahead of print October 4, 2010, doi:10.1073/pnas.1003292107

2009

Reager, J. T. and J. S. Famiglietti, Global terrestrial water storage capacity and flood potential from GRACE, Geophys. Res. Lett., 36, L23402, doi:10.1029/2009GL040826

Rodell, M., I. Velicogna and J. Famiglietti, Satellite-based estimates of groundwater depletion in India, Nature, doi:10.1038/nature08238

Seo, K.-W., B. Tian, D. E. Waliser, J. S. Famiglietti and T. H. Syed, Evaluation of global land-to-ocean fresh water discharge and evapotranspiration using space-based observations, J. Hydrology, 373, 508-515.
Syed, T. H., J. S. Famiglietti and D. Chambers, GRACE-based estimates of terrestrial freshwater discharge from basin to continental scales, J. Hydrometeorology, 10(1), 22-40, DOI: 10.1175/2008JHM993.1
Yeh, P. J.-F. and J. Famiglietti, Regional groundwater evapotranspiration in Illinois, J. Hydrometeorology, 10(2), 464–478

2008

Famiglietti, J. S., D. Ryu, A. A. Berg, M. Rodell, and T. J. Jackson, Field observations of soil moisture variability across scales, Water Resour. Res., 44, W01423, doi:10.1029/2006WR005804.
Famiglietti, J. S., D. Ryu, A. A. Berg, M. Rodell, and T. J. Jackson, Reply to Comment by Vereecken et al. on 'Field Observations of Soil Moisture Variability Across Scales', Water Resour. Res., 44, W12602, 2 PP doi:10.1029/2008WR007323
Frappart, F., F. Papa, J. S. Famiglietti, C Prigent, W. B. Rossow, and F. Seyler, Interannual variations of river water storage from a multiple satellite approach: A case study for the Rio Negro River basin, J. Geophys. Res., 113, D21104, doi:10.1029/2007JD009438.
Goteti, G., J. S. Famiglietti, and K. Asante, A Catchment-Based Hydrologic and Routing Modeling System with explicit river channels, J. Geophys. Res., 113, D14116, doi:10.1029/2007JD009691
Lo, M., P. J.-F. Yeh and J. Famiglietti, Constraining Water Table Depth Simulations in a Land Surface Model Using Estimated Baseflow, Advances in Water Resources, 31, 1552-1564, doi:10.1016/j.advwatres.2008.06.007
Ramillien, G., J. S. Famiglietti and J. Wahr, Detection of continental hydrology and glaciology signals from GRACE: A review, Surveys in Geophysics, 29(4-5), 10.1007/s10712-008-9048-9, pp. 361-374
Swenson, S., J. Famiglietti, J. Basara, and J. Wahr, Estimating profile soil moisture and groundwater variations using GRACE and Oklahoma Mesonet soil moisture data, Water Resour. Res., 44, W01413, doi:10.1029/2007WR006057
Syed, T. H., J. S. Famiglietti, M. Rodell, J. Chen, and C. R. Wilson, Analysis of terrestrial water storage changes from GRACE and GLDAS, Water Resour. Res., 44, W02433, doi:10.1029/2006WR005779.
Yeh, P. J.-F. and J. Famiglietti, Regional terrestrial water storage change and evapotranspiration from terrestrial and atmospheric water balance computations, J. Geophys. Res., 113, D09108, doi:10.1029/2007JD009045.

2007

Gulden, L. E., E. Rosero, Z-L. Yang, M. Rodell, C. S. Jackson, G-Y. Niu, P. J.-F. Yeh, and J. Famiglietti, Improving land-surface model hydrology: Is an explicit aquifer model better than a deeper soil profile?, Geophys. Res. Lett., 34, L09402, doi:10.1029/2007GL029804
Rodell, M., J. Chen, H. Kato, J. Famiglietti, J. Nigro and C. Wilson, Estimating ground water storage changes in the Mississippi river basin using GRACE, Hydrogeology Journal, 15 (1): 159-166, doi 10.1007/s10040-006-0103-7
Syed, T. H., J. S. Famiglietti, V. Zlotnicki, and M. Rodell, Contemporary estimates of Pan-Arctic freshwater discharge from GRACE and reanalysis, Geophys. Res. Lett., 34, L19404, doi:10.1029/2007GL031254.
Wilson, M. D., P. D. Bates, D. Alsdorf, B. Forsberg, M. Horritt, J. Melack, F. Frappart and J. Famiglietti, Modeling large-scale inundation of Amazonian seasonally-flooded wetlands, Geophys. Res. Lett., 34, L15404, doi:10.1029/2007GL030156.

2006

Chen, J. L., C. R. Wilson, J. S. Famiglietti and M. Rodell, Attenuation effect on seasonal basin-scale water storage changes from GRACE time-variable gravity, J. Geodesy, 10.1007/s00190-006-0104-2

Lettenmaier, D. P. and J. S. Famiglietti, Water from on high, Nature, 444, 562-563.

Ryu, D. and J.S. Famiglietti, Multi-scale spatial correlation and scaling behavior of surface soil moisture, Geophys. Res. Lett., 33, L08404, doi:10.1029/2006GL025831.

Seo, K.-W., C. R. Wilson, J. S. Famiglietti, J. L. Chen, and M. Rodell, Terrestrial water mass load changes from Gravity Recovery and Climate Experiment (GRACE), Water Resour. Res., 42, W05417, doi:10.1029/2005WR004255.

Swenson, S. C., P. J.-F. Yeh, J. Wahr and J. S. Famiglietti, A comparison of terrestrial water storage variations from GRACE with in situ measurements from Illinois, Geophys. Res. Lett., 33, L16401, doi:10.1029/2006GL026962.

Yeh, P. J.-F., S. C. Swenson, J. S. Famiglietti and M. Rodell, Remote sensing of groundwater storage changes in Illinois using the Gravity Recovery and Climate Experiment (GRACE), Water Resour. Res., 42, W12203, doi:10.1029/2006WR005374.

2005

Berg, A. A., J. S. Famiglietti, M. Rodell, R. H. Reichle U. Jambor, S. L. Holl and P. R. Houser, Development of a Hydrometeorological Forcing Data Set for Global Soil Moisture Estimation, Int. J. Climatol. 25, 1697- 1714.

Chen, J., M. Rodell, C. R. Wilson and J. S. Famiglietti, Low degree spherical harmonic influences on Gravity Recovery and Climate Experiment (GRACE) water storage estimates, Geophys. Res. Lett., 32, L14405, doi:10.1029/2005GL022964.

Chen, J. L., C. R. Wilson, B. D. Tapley, J. S. Famiglietti and M. Rodell, Seasonal Global Mean Sea Level Change From Satellite Altimeter, GRACE, and Geophysical Models, J. Geodesy, DOI 10.1007/s00190-005-0005-9, 79(9), 532-539

Chen, J. L., C. R. Wilson, J. S. Famiglietti, and M. Rodell, Spatial sensitivity of the Gravity Recovery and Climate Experiment (GRACE) time-variable gravity observations, J. Geophys. Res., 110, B08408, doi:10.1029/2004JB003536.

Cosh, M. H., T. J. Jackson, R. Bindlish, J. Famiglietti and D. Ryu, Calibration of an Impedance Probe for Estimation of Surface Soil Water Content Over Large Regions, J. Hydrology, 311, 49-58.

Crow, W. T., D. Ryu and J. S. Famiglietti, Upscaling of Field-Scale Soil Moisture Meausurements Using Distributed Land Surface Modeling, Advances in Water Resources, 28(1), 1-14.

Rodell, M., P. R. Houser, A. A. Berg and J. S. Famiglietti, Evaluation of Ten Methods for Initializing a Land Surface Model, J. Hydrometeorology, 6(2), 146–155.

Ryu, D. and J. S. Famiglietti, Characterization of footprint-scale surface soil moisture variability using Gaussian and beta distribution functions during the Southern Great Plains 1997 (SGP97) hydrology experiment, Water Resour. Res., Vol. 41, No. 12, W12433, 10.1029/2004WR003835

Syed, T. H., J. S. Famiglietti, J. Chen, M. Rodell, S. I. Seneviratne, P. Viterbo and C. R. Wilson, Total Basin Discharge for the Amazon and Mississippi River Basins from GRACE and a Land-Atmosphere Water Balance, Geophys. Res. Lett., 32, L24404, doi:10.1029/2005GL024851.

2004

Famiglietti, J. S., Remote Sensing of Terrestrial Water Storage, Soil Moisture and Surface Waters, in *The State of the Planet: Frontiers and Challenges in Geophysics*, Geophysical Monograph Series, Volume 150, R. S. J. Sparks and C. J. Hawkesworth, eds., pp197-207.

Gordon, W.S., K.A. Crews-Myers, and J.S. Famiglietti, Assessing Land Cover Change in Watersheds of Hydro-Climatic Data Network Using NALC Imagery, GIScience & Remote Sensing, 41(4), 322-346.

Gordon, W. G., and J. S. Famiglietti, Response of the Water Balance to Climate Change in the U. S. over the 20th and 21st Centuries: Results from the VEMAP Phase 2 Model Intercomparisons, Global Biogeochemical Cycles, 18, GB1030, doi:10.1029/2003GB002098

Gordon, W. G., J. S. Famiglietti, N. L. Fowler, T. G. F. Kittel and K. A. Hibbard, Validation of Simulated Runoff from Six Terrestrial Ecosystem Models Using Observed Streamflow: Results from the VEMAP II Model Intercomparison, Ecological Applications, 14(2), 527-545.

Koster, R. D., M. J. Suarez, P. Liu, U. Jambor, A. Berg, M. Kistler, R. Reichle, M. Rodell and J. Famiglietti, Realistic Initialization of Land Surface States, J. Hydrometeorology, 5(6), 1049-1063.

Rodell, ,M., J. S. Famiglietti, J. Chen, S. Seneviratne, P. Viterbo, S. L. Holl, and C. R. Wilson, Basin-Scale Estimates of Evapotranspiration Using GRACE and Other Observations, Geophys.Res.Let., Vol. 31, No. 20, L20504,10.1029/2004GL020873

Syed, T. H., V. Lakshmi, E. Paleologos, D. Lohmann, K. Mitchell, and J. S. Famiglietti, Analysis of process controls in land surface hydrological cycle over continental United States, JGR-Atmospheres, 109, D22105, doi:10.1029/2004JD004640.

2003

Berg, A. A. and J. S. Famiglietti, Characterizing Regional Uncertainty in the Initial Soil Moisture Status, Geophys. Res. Let., 30(9)1466, doi:10.1029/2003GL017075

Berg, A. A., J. S. Famiglietti, J. Walker and P. R. Houser, Impact of Bias Correction to reanalysis products on Simulation of North American Soil Moisture and Hydrologic Fluxes, J. Geophys. Res., 108(D16), 4490, doi:10.1029/2002JD003334

Mohr, K. I., R. D. Baker, W-K. Tao and J. S. Famiglietti, The Sensitivity of West African Squall Line Water Budgets to Land Cover, J. Hydrometeorology, 4, 62-76.

Wilson, D. J., A. W. Western, R. B. Grayson, A. A. Berg, M. S. Lear, M. Rodell, J. S. Famiglietti, R. Woods, T. A. McMahon, Spatial Distribution of Soil Moisture over 6cm and 30cm Depth, Mahurangi River Catchment, New Zealand, J.Hydrol., 276 (1-4), 254-274.

2002

Olivera , F., M. S. Lear, J. S. Famiglietti, K. O. Asante and D. R. Maidment,, Extracting Low-Resolution River Networks From High-Resolution Digital Elevation Models, Wat. Resour. Res., 38 (11), 1231, doi 10.1029/2001WR000726

Rodell, M. and J. S. Famiglietti, The Potential for Satellite-Based Monitoring of Groundwater Storage Changes Using GRACE: The High Plains Aquifer, Central U. S., J. Hydrol., 263, 245-256.

2001

Houser, P. R., H. V. Gupta, W. J. Shuttleworth and J. S. Famiglietti, Multiobjective calibration and sensitivity of a distributed land surface water and energy balance model
J. Geophys. Res. 106, (D24) , 33,421-33,434

Mohr, K. I., J. S. Famiglietti and A.Boone, The Effect of Field-Scale Sub-Grid Variability of Soil Moisture on the Simulation of Soil Moisture and Heat Fluxes for a Mesoscale Watershed: A Case Study from the Southern Great Plains 1997 Hydrology Experiment, in Observations and Modeling of the Land Surface Hydrological Processes, American Geophysical Union, Water Science and Applications 3, V. Lakshmi, J. Albertson and J.Schaake, eds, 161-176.

Rodell, M. and J. S. Famiglietti, Analysis of Terrestrial Water Storage Variations in Illinois with Implications for the Gravity Recovery and Climate Experiment, Wat. Resour. Res., 37(5), 1327-1339.

2000

Asquith, W. H. and J. S. Famiglietti, Precipitation Areal Reduction Factor Estimation Using an Annual Maxima Centered Approach, J. Hydrol., 230, 55-69.

Mohanty, B. P., J. S. Famiglietti and T. H. Skaggs, Evolution of Soil Moisture Spatial Structure in a Mixed-Vegetation Pixel During the Southern Great Plains (SGP97) Hydrology Experiment, Wat. Resour. Res., 36(12), 3675-3686.

Mohanty, B. P., T. H. Skaggs and J. S. Famiglietti, Analysis and Mapping of Field-Scale Soil Moisture Variability Using High Resolution Ground-Based Data During the Southern Great Plains 1997 (SGP97) Hydrology Experiment, Wat. Resour. Res., 36(4), 1023-1031.

Mohr, K. I., J. S. Famiglietti, A. A. Boone and P. J. Starks, Modeling Soil Moisture and Surface Flux Variability with an Untuned Land Surface Scheme: A Case Study from the Southern Great Plains 1997 Hydrology Experiment, J. Hydrometeorology, 1(2), 154-169.

Olivera, F., J. S. Famiglietti, and K. Asante, Global-Scale Flow Routing Using a Source-to-Sink Algorithm, Wat. Resour. Res., 36 (8), 2197-2207.

1999

Famiglietti, J. S., J. A. Devereaux, C. Laymon, T. Tsegaye, P. R. Houser, T. J. Jackson, S. T.Graham, M. Rodell and P. J. vanOevelen Ground-Based Investigation of Spatial-Temporal Soil Moisture Variability Within Remote Sensing Footprints During SGP97, Wat. Resour. Res., 35(6), 1839-1851.

Graham , S. T., J. S. Famiglietti and D. R. Maidment, 5-Minute, 1/2 Degree and 1-Degree Data Sets of Continental Watersheds and River Networks for Use in Regional and Global Hydrologic and Climate System Modeling Studies, Wat. Resour. Res., 35(2), 583-587.

Hwu, W., S. Sorooshian, X. Gao and J. S. Famiglietti, Intercomparisons of ECMWF, ERA and TOGA Data with Observations for the 1993 Great Flood, J. Geophys. Res., 104 (D16), 19367-19382.

Mohr, K. I., J. S. Famiglietti and E. J. Zipser, The Contribution to Tropical Rainfall with Respect to Convective System Type, Size and Intensity Estimated from the 85-GHz Ice Scattering Signature, J. Appl. Meteor., 38, 596-606.

Rodell, M. and J. S. Famiglietti, Detectability of Variations in Continental Water Storage from Satellite Observations of the Time-Variable Gravity Field, Wat. Resour. Res., 35(9), 2705-2723.

1998

Famiglietti, J. S., J. W. Rudnicki and M. Rodell, Variability in Surface Moisture Content Along a Hillslope Transect: Rattlesnake Hill, Texas, J. Hydrol., 210 (1-4), 259-281.

Houser, P. R., W. J. Shuttleworth , J. S. Famiglietti, H. V. Gupta, K. H. Syed and D. C. Goodrich, Integration of Soil Moisture Remote Sensing and Hydrologic Modeling Using Data Assimilation, Wat. Resour. Res., 34(12), 3405-3420.

1997

Stieglitz, M., D. Rind, J. Famiglietti and C. Rosenzwieg, An Efficient Approach to Modeling the Topographic Control of Surface Hydrology for Regional and Global Climate Modeling, J. Clim., 10, 118-137.

1995

Famiglietti, J. S., B. H. Braswell, and F. Giorgi, Process Controls and Similarity in the U. S. Continental-Scale Hydrological Cycle from EOF Analysis of Regional Climate Model Simulations, Hydrol. Processes, 9, 437-444.

Famiglietti, J. S. and E. F. Wood, Effects of Spatial Variability and Scale on Areally-Averaged Evapotranspiration, Wat. Resour. Res., 31(3), 699-712.

1994

Famiglietti, J. S. and E. F. Wood, Multi-Scale Modeling of Spatially-Variable Water and Energy Balance Processes, Wat. Resour. Res., 30(11), 3061-3078.

Famiglietti, J. S. and E. F. Wood, Application of Multi-Scale Water and Energy Balance models on a Tallgrass Prairie, Wat. Resour. Res.,30(11), 3079-3093.

1993

Wood, E. F., D-S. Lin, M. Mancini, D. Thongs, P. A. Troch, T. J. Jackson, J. S. Famiglietti and E. T. Engman, Intercomparisons Between Passive and Active Microwave Remote Sensing, and Hydrologic Modeling for Soil Moisture, Adv. Space. Res., 13, (5),167-176.

1992

Famiglietti, J. S., E. F. Wood, M. Sivapalan and D. J. Thongs, A Catchment Scale Water Balance Model for FIFE, J. Geophys. Res., 97(D17), 18997-19007.

1991

Famiglietti, J. S. and E. F. Wood, Evapotranspiration and Runoff from Large Land Areas: Land Surface Hydrology for Atmospheric General Circulation Models, Surveys in Geophysics, 12, 179-204.

Selected Non-Refereed Publications (Proceedings, Reports, Articles):

2014

UCCHM Water Advisory**,** Water Storage Changes in California's Sacramento and San Joaquin River Basins From GRACE: Updated Results for 2003-2013

2011

Famiglietti, J., The global water challenge as seen from space, in "Focusing on Performance: Global Water Summit 2011, pp. 12-21.

Famiglietti, J., L. Murdoch, V. Lakshmi and J. Arrigo, Establishing a Framework for Community Modeling in Hydrologic Science, Report from the 3^{4d} Workshop on a Community Hydrologic

Modeling Platform (CHyMP): A Strategic and Implementation Plan, Irvine, CA, March 15-17, 2011

Gleick, P. H., H. Cooley, J. Famiglietti, D. Lettenmaier, T. Oki, C. Vörösmarty, E. Wood, Improving Understanding of the Global Hydrologic Cycle, WCRP Open Science Conference, Denver, Colorado, October 2011

Swenson, S. and J. Famiglietti, Sustainable Groundwater Management for Large Aquifer Systems: Tracking Depletion Rates from Space, UNESCO-GRAPHIC Case Studies

2010

CUAHSI Board of Directors, Water in a Dynamic Planet. A Five-year *Strategic Plan* for Water Science, Consortium of Universities for the. Advancement of Hydrologic Science, Inc., doi:10.4211/stratplan.201012

Famiglietti, J., L. Murdoch, V. Lakshmi and R. Hooper, Towards a Framework for Community Modeling in Hydrologic Science, Report from the 2nd Workshop on a Community Hydrologic Modeling Platform (CHyMP): Blueprint for a Community Hydrologic Modeling Platform University of Memphis, Memphis, TN, March 31-April 1, 2009, doi:10.4211/techrpts.20100616.tr9

Milly, P.C.D., A. Cazenave, J. S. Famiglietti, V. Gornitz, K. Laval, D. P. Lettenmaier, D. L. Sahagian, J. M. Wahr and C. R. Wilson, Terrestrial Water-Storage Contributions to Sea-Level Rise and Variability, Understanding Sea-Level Rise and Variability, 1st Edition, J. A. Church, P. L. Woodworth, T. Aarup and W. S. Wilson, eds., Blackwell Publishing, Ltd., pp. 226-255.

Rodell M., J. S. Famiglietti and B. R. Scanlon, Realizing the Potential for Satelitte Gravimetry in Hydrology: Second GRACE Hydrology Workshop, August 4, 2009, Austin, TX, EOS Trans. AGU, 91(10), 96.

2009

Famiglietti, J., L. Murdoch, V. Lakshmi and R. Hooper, Rationale and Strategy for a Community Modeling Platform in the Hydrologic Sciences, Community Modeling in Hydrologic Science, Report of the CHyMP Scoping Workshop held March 26-27, 2008, Washington, DC, CUAHSI Technical Report #8, April 12, 2008, doi:10.4211/techrpts.200911.tr8

2008

Famiglietti, J., L. Murdoch, V. Lakshmi and R. Hooper, 2008, Community Modeling in Hydrologic Science, EOS, Transactions, American Geophysical Union, 89(32), pp. 292

Famiglietti, J., Global terrestrial network for groundwater (GTN-GW), in Terrestrial Essential Climate Variables for Climate Change Assessment, Mitigation and Adaptation (GTOS 52), R. Sessa and H. Dolman, eds, Food and Agriculture Organization of the United Nations, Rome, 2008

2007

Famiglietti, J. S., Geophysical Research Letters: New Policies and Features for AGU's Top-Cited Journal, to appear, EOS, Transactions, American Geophysical Union, 88(49), 4 December 2007.

Potter, K., et al., Report of the Committee on Integrated Observations in the Hydrologic and Related Sciences, National Research Council

2005

Alsdorf, D., D. Lettenmaier, J. Famiglietti, and Charles Vörösmarty, Observing surface water from space: The Water Elevation Recovery (WatER) Mission, GEWEX News, 15(3), August

Reckhow, K. and the Neuse Prototype Hydrologic Observatory Design Team, Designing Hydrologic Observatories: A Paper Prototype of the Neuse Watershed, A Report to the Consortium of Universities for the Advancement of Hydrologic Sciences, Inc.

1993

Pitman, A. J., A. Henderson-Sellers, F. Abramopoulos, R. Avissar, G. Bonan, A. Boone, R. E. Dickinson, M. Elk, D. Entekhabi, J. Famiglietti, J. R. Garratt, M. Frech, A. Hahmann, R. Koster, E. Kowalczyk, K. Laval, J. Lean, T. J. Lee, D. Lettenmaier, X. Liang, J-F. Mahfouf, L. Mahrt, P. C. D. Milly, K. Mitchell, N. deNoblet, J. Noilhan, H. Pan, R. Pielke, A. Robock, C. Rosenzweig, C. A. Schlosser, R. Scott, M. Suarez, S. Project for Intercomparison of Landsurface Parameterization Schemes (PILPS): Results from Off-Line Control Simulation (Phase 1a), International GEWEX Project Office Publication Series, No. 7, 47pp.

Invited Lectures (Last 5 years):

2015

Tucson Committee on Foreign Relations, Tucson, AZ; University of Arizona, Tucson, AZ; Anza-Borrego Natural History Association, Borrego Springs, CA; Hydrologic Sciences Symposium, University of Colorado, Boulder; American Water Resources Association Spring Conference, Los Angeles, CA; National Institute for Animal Agriculture, Annual Conference, Indianapolis, IN; World Water Day for the San Gabriel Valley, Sierra Madre, CA; Tufts University, Medford, MA; UCLA, Los Angeles, CA; Pasadena Rotary Club, Pasadena, CA; Groundwater Resources Association of California, San Francisco Bay Area Branch; King Abdullah University of Science and Technology, Saudi Arabia

2014

Localizing California Waters, Tuolumne, CA; Max Planck Institute for Biogeochemistry, Jena, Germany; International Space Science Institute, Bern; Moos Family Lecture Series, Freshwater Society, U. Minn.; Society of Environmental Journalists, New Orleans; League of Women Voters of Orange County; International GEWEX Science Conference, The Hague; American Geophysical Union Science Policy Conference, Washington, DC; Mesa Water District, Water Issues Study Group, Costa Mesa, CA; Urban Water Management Workshop, UC Riverside; University Club Forum, UC Irvine; Laguna Beach Rotary Club, Laguna, CA; Southern California Water Dialogue, Los Angeles; Cal State Long Beach; Metropolitan Water District of Southern California, Los Angeles; National Taiwan University; Northeastern University; Boston Museum of Science; Utah State University; Rice University; Groundwater Resources Association of California (2); Orange County Natural History Lecture Series; Desert Sun Water Forum; California State Water Resources Control Board, Sacramento; Association for Corporate Growth, UC Irvine; Water Advisory Council of Orange County, Fountain Valley, CA

2013

UCLA; Brown University; Pennsylvania State University; Jet Propulsion Laboratory; University of Texas at Austin; University of Virginia; University of Saskatchewan; Tel Aviv University;

Technion University; Georgia Institute of Technology (2), American Water Intelligence, Houston; Zocalo Public Square, Los Angeles

2012

Ohio State University; Orange Coast College; Milken Institute California Summit; American Water Intelligence, American Water Summit; Grand Valley State University; Geological Society of America, Annual Meeting; University of North Carolina, Chapel Hill; University of British Columbia; Environmental Science Institute, University of Texas at Austin; Department of Geological Sciences, University of Texas at Austin; Iowa State University; Clean Water Act@40, Harvard Law School; Department of Energy, Water Cycle Workshop; California Water Federation/Water Education Foundation/Environmental Defense Fund; U. S. Department of State, Intergovernmental Water Panel; University of Virginia; University of Nebraska-Lincoln Water Center; University of California, Berkeley; Urban Water Institute, Annual Conference; Clinton Global Initiative; Wolfensohn Fund; National Ground Water Association, Groundwater Summit; Brown University; Harvard University; New Mexico Tech; Oklahoma State University; University of Pennsylvania; Jet Propulsion Laboratory; Cal State Long Beach; UC Irvine, School of Law; Bureau of Economic Geology, University of Texas at Austin; Northern Arizona University, Flagstaff; National Ground Water Association, Emerging Issues Conference; University of Hawaii at Manoa ; Cal Poly Pomona; University of Nevada, Las Vegas; University of Arizona; University of California, Santa Barbara

2011

Texas A & M University, New Frontiers in Engineering Science for Sustainability Seminar Series**;** Georgetown University, Loewy Lecture, Science, Technology and International Affairs Program**;** McGill University, Brace Centre for Water Resources Management**;** Beijing Water Authority, Beijing Hydraulic Research Institute**;** Chinese Academy of Science, Institute of Tibetan Plateau Research**;** Beijing Normal University, College of Global Change and the Earth System

2010

University of California, Davis, Oregon State University, Institute for Water and Watersheds Seminar Series, University of California, Merced, Stanford University, Department of Environmental Earth System Science, Stanford University, Fluid Mechanics Seminar, Department of Civil and Environmental Engineering

Invited Presentations (Last 5 Years):

2015

Famiglietti, J. S., Epic California Drought and Groundwater as Viewed from Space, AGU Chapman Conference, Irvine, CA, March 22, 2015

Famiglietti, J. S., The role of remote sensing in groundwater and drought management, Calfornia State Water Resources Control Board, Sacramento, CA, February 11

2014

Famiglietti, J. S., Accelerated Drying of the Mid-Latitudes from Groundwater Depletion, 2014 American Geophysical Union Fall Meeting, San Francisco, Dec. 15-19

Famiglietti, J. S. Castle, M. H. Lo, J. T. Reager, M. Rodell, A. Thomas, B. Thomas, Satellite observations of groundwater depletion in the western U. S. highlight threats to water and food security, Geological Society of America Annual Meeting, Vancouver, BC

Famiglietti, J., Keynote, CUAHSI Biennial Symposium, Shepherdstown, WV

Famiglietti, J., AGU Science Policy Conference, Panel on Science Communication

Famiglietti, J., GRACE applications to monitoring drought, NASA-DWR workshop, Sacramento

Famgilietti, J., Groundwater depletion as viewed from space: Issues at home and abroad, U. S. Global Change Research Program, Adaptation Science Interagency Working Group, Washington, DC

Famiglietti, J., Soil moisture and groundwater scaling behavior across scales, EGU, Vienna

David, C. H., J. T. Reager and J. S. Famiglietti, Hyper-resolution modeling in California and the western U. S., Workshop on hyper-resolution modeling, Utrecht

Famiglietti, J., Groundwater depletion in California as viewed from space, California State Water Resources Control Board, Sacramento

2013

Reager, J. T., C. de Linage, M. Lo, S. Swenson, D. Chambers, K. Voss, M. Rodell, and J. S. Famiglietti, Emerging groundwater storage trends from GRACE and Contributions to Global Mean Sea Level Rise, American Geophysical Union, Fall Meeting, 2013

Famiglietti, J. S., Impacts of Large-Scale Water Management on Terrestrial Hydrology and Climate, American Geophysical Union, Fall Meeting, 2013

Famiglietti, J. S., M. Rodell, J. T. Reager, C. de Linage, M. Lo, S. Swenson, D. Chambers and K. Voss, Emerging groundwater storage trends from GRACE and Contributions to Global Mean Sea Level Rise, Geological Society of America 2013 Annual Meeting, Denver, October, 2013

Famiglietti, J. S., Monitoring and Managing Groundwater Storage Changes Using the NASA GRACE Satellite Mission, World Water Week, Stockholm, Sweden

Famiglietti, J. S., Mapping Changing Freshwater Availability and Groundwater Depletion with the NASA GRACE Satellite MissionWorld Water Week, Stockholm, Sweden,

Famiglietti, J. S., Water Cycle Change and the Human Fingerprint on the Water Landscape of the 21st Century: Observations from a Decade of GRACE, AsiaFlux/HESSS3 Workshop, Seoul, South Korea, August 20-22

Famiglietti, J. S., Mapping water security in Canada, Towards Sustainable Groundwater: Making groundwater inventories, mapping and monitoring visible and self-financing, Munk School of Global Affairs, University of Toronto, June 25.

Famiglietti, J. S., Groundwater remote sensing using GRACE and GPS, IGARSS, Melbourne, Australia, July, 2013

Famiglietti, J. S., Water Cycle Change and Global Groundwater Depletion from the NASA GRACE Mission, World Bank, Washington, D.C., April 11

2012

Famiglietti, J. S. and J. T. Reager, Characterisitc mega-basin storage using GRACE, Fall Meeting, AGU, San Francisco, CA, 2-7 Dec

Famiglietti, J. S., Water Cycle Change and the Human Fingerprint on the Water Landscape of the 21st Century: Observations from a Decade of GRACE, AGU, San Francisco, CA, 2-7 Dec

Famiglietti, J. S., Large-scale terrestrial water budgets from GRACE, AOGS (WPGM) Meeting, Singapore, 13-17 August

Famiglietti, J. S., Water Cycle Change and the Human Fingerprint on the Water Landscape of the 21st Century: Observations from a Decade of GRACE, AOGS (WPGM) Meeting, Singapore, 13-17 August

Famiglietti, J. S., Getting Real About the State of Hydrological Modeling: Priorities for Advancing the Next Generation of Integrated, Data-Assimilating Water Cycle Simulators, AGU Chapman Conference on Remote Sensing of the Terrestrial Water Cycle, Kona, Hawaii, 19 –22 Feb

Kim, H., T. Oki, P. A. Dirmeyer, S. I. Seneviratne, S. Kanae, and J. S. Famiglietti, Verification of Simulations and Uncertainty Estimations in Ensemble Land Surface Simulations: Exercises in the Global Soil Wetness Project Phase 3, abstract Hydrology 1.4, presented at 92nd Annual Meeting, AMS, New Orleans, Louisiana, 22-26 Jan.

2011

Famiglietti, J., C. A. Clayson and E. F. Wood, Remotely-Sensed Estimates of Regional and Global Evaporation and Latent Heating, abstract H42B-01,presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.

Famiglietti, J. S., M. Lo, H. J. Kim, J. Edman, B. F. Sanders, S. Castle Z. Liu, N. L. Miller, R. S. Singh, D. W. Valentine and I. Zaslavsky Accelerating the Development of Land Surface Hydrological Modeling to Address Societal Needs: Application of an Integrated Data and Modeling Framework to California abstract GC34B-08 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.

Rodell M. and J. Famiglietti, Monitoring Global Freshwater Resources with GRACE, abstract GC21D-02 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.

Rodell M., M. M. Watkins and J. Famiglietti, Remote Sensing of Terrestrial Water Storage with GRACE and Future Satellite Gravimetry Missions, abstract H21J-05, presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.

Famiglietti, J., M. Rodell, S. Swenson, D. Chambers, M. Lo, K. Voss, C. de Linage and S. Ho, Groundwater depletion as a global phenomenon, 2011 GSA Annual Meeting in Minneapolis, 9–12 October

Famiglietti, J., J. Reager, K. Voss and R. Rivera, Observations of changing freshwater availability from GRACE, Water Matters, IAEA Scientific Forum 2011, September 20-21, Vienna

Famiglietti, J., Observations of changing freshwater availability in Australia from GRACE, International Keynote, Water Summit Australia 2011, Sydney, July 20-21.

Famiglietti, J., D. Chambers, J. T. Reager, M. Rodell, H. Syed, S. Swenson, I. Velicogna, J. Wahr, K. Hilburn, J. Willis and S. Nerem, Indicators of water cycle acceleration from GRACE and NASA NEWS datasets, NEWS Science Team Meeting, Irvine, CA, June 13

Famiglietti, J., 1st UNESCO-GRAPHIC LAC Seminar, Groundwater Resources, Climate Change and Human Pressures: Assessment and Adaptation in Latin America and the Caribbean, Space-Based Observations of Groundwater Depletion, Juan Dolio, Dominican Republic, June 30-July 1

Famiglietti, J., The Water Cycle at the End of the 21st Century, The Global Water Summit 2011, Berlin, Germany, 18-19 April, Keynote Science Address

Famiglietti, J., Groundwater Dynamics Using GRACE and the Potential for Combining with Isotopic Information, International Symposium on Isotopes in Hydrology, Marine Ecosystems, and Climate Change Studies, 27 March - 1 April 2011, Monaco

2010

Famiglietti, J., D. P. Chambers, M. Rodell, T. H. Syed, S. C. Swenson, I. Velicogna, J. M. Wahr, R. Nerem, K. A. Hilburn and J. K. Willis. Indicators of Water Cycle Acceleration from GRACE and NASA NEWS Datasets, Abstract H34D-04 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec

Famiglietti, J., M. Rodell, S. C. Swenson, D. P. Chambers, K. Voss, M. Lo, C. de Linage, K. Anderson, J. T. Reager, R. Rivera, H. Liu, I. Velicogna, J. Wahr and R. Nerem, Emerging trends in freshwater availability from GRACE, Abstract H14D-01 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec

Rodell, M., T. Townsend, J. S. Famiglietti, B. Li, and J. Nigro, Large Scale Variability of Ground Water Storage: the Mississippi River Basin, Abstract H14D-02 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec

Famiglietti, J. S., Water Cycle Change from GRACE, Workshop on 'Uncovering the global state of the biosphere from in-situ and Earth Observation data – towards a land-ecosystem-atmosphere index,' Frascati, Italy, 2 November, 2010

Famiglietti, J. S., T. H. Syed, D. Chambers, J. Willis and K. Hilburn, Mass Balance Methods for Estimating Regional to Global Freshwater Discharge Using GRACE and Altimetry, Altimetry for Oceans and Hydrology, 18-22 October, Lisbon, Portugal,

Famiglietti, J. S., M. Rodell, T. L'Ecuyer, H. Kato Beaudoing and the NEWS Water and Energy Cycle Climatology Team, Altimetry for Oceans and Hydrology, 18-22 October, Lisbon, Portugal

Famiglietti, J. S., The Community Hydrologic Modeling Platform (CHyMP) and CSDMS, CSDMS Workshop on Modeling for Environmental Change, 14-17 October, San Antonio, TX

Famiglietti, J. S, Lessons Learned from 9 Years of GRACE, SWOT Meeting, 22-23, September, 2010

Famiglietti, J. S., Role of Community Models for SWOT, SWOT Hydrology Virtual Mission Meeting, Paris, 22-September, 2010

Famiglietti, J. S., and K. A. Voss, Groundwater Depletion in Turkey and the Middle East from GRACE, UN/Turkey/ESA Workshop on Space Technology Applications for Socio-Economic Benefits, 14-17 September, Istanbul, Turkey

Famiglietti, J. S., The Human Fingerprint on Land-Atmosphere Interactions, CUAHSI 2nd Biennial Colloquium on Hydrologic Science and Engineering, 19-21 July, 2010, Boulder, CO.

Famiglietti, J. S., On the Need to Accelerate the Development of Regional-to-Global-Scale Hydrological Models, HESSS2 International Conference, 22-25 June 2010, Tokyo, Japan

Famiglietti, J. S., Linking Models and Model Integration in a Community Framework, 3rd USGS Modeling Conference, 7-11 June, 2010, Broomfield, CO

Famiglietti, J. S., The University of California Center for Hydrologic Modeling, Meeting a Grand Challenge to Hydrology: The Global Monitoring of Earth's Terrestrial Water, A Workshop on Hyper-Resolution Land Surface Modeling, Princeton, NJ, March 15-17

Famiglietti, J. S., Understanding Hydrologic Change from Geodetic Measurements: Opportunities and Challenges, UNAVCO 2010 Science Workshop, Boulder, CO, March 9-11

Professional Affiliations and Service:

American Geophysical Union

2005-2009	Editor-in-Chief, *Geophysical Research Letters*
2004	Hydrology Fall Meeting Program Chair

2001-2004 Editor, *Geophysical Research Letters*
2001-2009 Hydrology Executive Committee
2000-2003 Hydrology Section, Remote Sensing Committee, Co-Chair
1997-2001 Associate Editor, *Water Resources Research*
1996-present Hydrology Section, Remote Sensing Committee
1986-present Member

American Meteorological Society
1995-1998 Hydrology Committee
1992-2000 Member

Blue Legacy
2012-present Advisory Board

Consortium of Universities for the Advancement of Hydrologic Sciences, Inc. (CUAHSI)
2011 Board of Directors
2008-2010 Chair-Elect (2008), Chair (2009), Past-Chair (2010), Board of Directors
2007-present Community Hydrologic Modeling Platform (CHyMP), Lead Scientist
2005-2010 Executive Committee, Board of Directors

Geological Society of America
2012-2014 Birdsall-Dreiss Distinguished Lecturer Selection Committee
2011-present Member

Other Society Memberships
2000-2005 American Society of Civil Engineers, European Geophysical Union, IEEE

Congressional Testimony
2012 **Congressional Testimony**, U. S. House of Representatives, Committee on Science, Space and Technology, Hearing on Drought Forecasting, Monitoring and Decision Making: A Review of the National Integrated Drought Monitoring System, July 25
2010 **Congressional Testimony**, U. S. House of Representatives, Committee on Natural Resources, Sub-Committee on Water and Power, Groundwater Depletion in California's Central Valley, January 25

International, Federal and State Government Advising and Briefing
2014 **U. S. Congressional Briefing,** UC Research: Managing Water from Floods to Droughts, May 6, Washington, DC
California State Assembly Committee on Water, Parks and Wildlife, Groundwater management hearing, March 11, Sacramento
U. S. Department of Defense, Office of Net Assessment, briefing on global water security, February 20, Washington, DC

	California State Water Resources Control Board, Groundwater concept paper workshop, January 22, Sacramento
2013	**U. S. Department of Defense, Office of Net Assessment**, briefing on global water security, November 14, Washington, DC
	U. S. Senate, Staff Briefing on Groundwater in the United States and on Science paper "Water in the Balance," July 29
	Consul General to Israel, Los Angeles, Briefing on Middle East Water Security and Water Diplomacy
	U.S. Embassy, Tel Aviv, Briefing on Middle East Water Security and Water Diplomacy
	U.S. Embassy, Amman, Briefing on Middle East Water Security and Water Diplomacy
2011	**U. S. Secretary of Energy**, **Steven Chu**, Obama Administration, Briefing on global groundwater depletion including California's Central Valley, September 19, Vienna
2011	**United Nations, Former Director General, Kofi Annan**, Briefing on global water issues, April 18, Berlin
2010-present	Multiple personal and staff briefings:
	U.S. Senators Barbara Boxer (CA), Diane Feinstein (CA), Brian Schatz (HI), Sheldon Whitehouse (RI)
	U.S. Representatives Grace Napolitano (CA), Jim Costa (CA), Kevin McCarthy (CA), David Valadao (CA), Ken Calvert (CA), George Miller (CA), Dana Rohrabacher (CA), Zoe Lofgren (CA, Loretta Sanchez (CA), Ed Royce (CA), Harry Waxman (CA), John Garamendi (CA)
	U. S. Senate Committee on Energy and Natural Resources
	U.S. House Committee on Space, Science and Technology
	U. S. House Committee on Natural Resources, Subcommittee on Water and Power
	U. S. Congressional Research Service
	White House: Office of Science and Technology Policy; Council on Environmental Quality
	U.S. Department of State: Water Team
	U. S. Department of Interior: Assistant Secretary for Water and Science
	California Office of the Governor; Office of Planning and Research; Washington DC staff; Secretary of Natural Resources; State Water Resources Control Board; State Board on Food and Agriculture
	Orange County Water District, Municipal Water District of Orange County, Water Advisory Council of Orange County, Irvine Ranch Water District, Southern California Association of Governments
2001	**U. S. Secretary of Commerce**, **Don Evans**, G. W. Bush Administration, Advising on Global Change, February 14, Austin

Working Groups and Committees

2011-2012	National Academy of Science, National Research Council, Board on Atmospheric Sciences and Climate, Committee on A National Strategy for Advancing Climate Modeling
2010-2012	Committee on Earth Observation Satellites (CEOS), Working Group and Calibration and Validation, Land Product Validation Subgroup, Soil Moisture Validation Focus
2009-2010	National Academy of Science, National Research Council, Committee on Climate, Energy and National Security, Panel on Hydrology and Water Resources
2008-2010	Community Surface Dynamics Modeling System (CSDMS)/CUAHSI Hydrology Focus Research Group, Chair
2007-2011	Global Climate Observing System (GCOS)/Global Terrestrial Observing System (GTOS), Terrestrial Observation Panel for Climate Integrated Global Observing Strategy (IGOS) Water Cycle Observations (IGWCO) Theme , Science Advisory Committee
2006-2010	International Soil Moisture Working Group
2005-2007	National Academy of Science, National Research Council, Committee on Integrated Observations for Hydrologic and Related Studies
2005	NASA, Earth Science and Applications from Space Strategic Roadmap Committee, Subcommittee on Discovery and Exploration
2003-2004	Consortium of Universities for the Advancement of Hydrologic Sciences, Inc. (CUAHSI) Hydrologic Observatory Prototype Design Committee
2002-present	NASA, Terrestrial Hydrology Program, Surface Water Working Group
1999-present	NASA, Terrestrial Hydrology Program, Soil Moisture Working Group
1998-2003	International Earth Rotation Service, Special Bureau for Hydrology
1997-2007	External Advisory Team, Center for Hydrology, Soil Climatology and Remote Sensing, Alabama A & M University
1996-present	NCAR Climate System Model Land Working Group
1997-1999	Southern Great Plains 1997 Hydrology Experiment Soil Moisture Working Group

Symposia and Workshops Organized

2015	National Research Council Decadal Survey, Community Workshop on Future Terrestrial Water Storage Missions, co-organizer
	Water Sustainability in Metropolitan Los Angeles, Resnick Institute for Sustainability and NASA Jet Propulsion Laboratory Joint Workshop, California Institute of Technology, co-organizer
2012	DOE Water Cycle Workshop, 25-28 September, Washington, DC. Co-organizer
2011	NASA Energy and Water Cycle (NEWS) Science Team Meeting, June 13-15, Irvine, CA, co-organizer
	3rd Workshop on the Community Hydrologic Modeling Platform (CHyMP): Strategic and Implementation Plan, March 15-17, Irvine, CA, co-organizer

2009	Second Workshop of the CSDMS Hydrology Focus Research Group, 16-17 November, Boulder, CO, co-organizer
	2nd Workshop on a Community Hydrological Modeling Platform (CHyMP), March 31-April 1, Memphis, TN, co-organizer
	First Workshop of the CSDMS Hydrology Focus Research Group, 20-21 January, Boulder, CO, organizer
2008	UNESCO-UCI International Conference on Water Scarcity, Global Changes and Groundwater Management Responses, 1-6 December, Irvine, CA, Organizing and Scientific Committees
	International Conference on Groundwater and Climate in Africa, 25-28 June, Kampala, Uganda, Scientific Steering Committee
	Scoping Workshop on a Community Hydrological Modeling Platform (CHyMP), March 26-27, Washington, DC, co-organizer
2007	IGWCO/GARS/UNESCO Workshop on Global Monitoring of Groundwater Resources, October 18-19, Utrecht, The Netherlands, co-organizer
	UCI-JPL Workshop on Satellite Observations of the Global Water Cycle, March 7-9, Beckman Center of the National Academies, Irvine, CA, co-organizer
2004	GRACE Hydrology Workshop, March 22, Beckman Center of the National Academies, Irvine, CA, organizer

Outreach and Communication

Film and video

2014	**Al Jazeera America,** TechKnow, California drought episode, October 18, 2014
	Pivot TV, update on 'Last Call at the Oasis'
	60 Minutes, Depleting the Water, featured expert, story consultant, November 16, 2014
	PBS SoCal Water expert video
2013	**Sip, Do Not Gulp**. Filmed interview for de Saisset Museum installation, Santa Clara University
	TEDx, "Can We End the Global Water Crisis" http://www.youtube.com/watch?v=SejRgVhsT7c
2012	**ESPN/Longhorn Network,** Interview and filming of public outreach lecture "Last Call at the Oasis: Is This Our Inconvenient Truth," for broadcast on ESPN/Longhorn Network, Oct. 26
2010-2012	**Participant Media**, featured expert, water documentary, 'Last Call at the Oasis' http://www.takepart.com/lastcall
2011	**Visualizing.org**, HeadsUp2011 Times Square Challenge: Visualize Global Groundwater Trends. Scientific visualization competition for Times Square electronic billboards on World Water Day, March 22, 2012. Data provider and judge
	Water Brothers, Canadian public television documentary television series, featured expert on California water issues.

Participant Media, consultant on Social Action campaign for water documentary, 'Last Call at the Oasis'
http://www.takepart.com/lastcall

Future of Water, Virtual Conference, Water cycle change, http://www.youtube.com/watch?v=MJnoGcfo7ys

2009 **Nature Magazine**, Nature Videos, 'An Indian Hotspot,' http://www.nature.com/nature/videoarchive/indianhotspot/

2008 **American Museum of Natural History**, New York, Science Bulletin video series, 'GRACE: Tracking Water From Space'
http://www.youtube.com/watch?v=vfXXGYxEeoM

Radio, Television, Newspaper, Magazines, Blogs

2009-present Multiple interviews on hydrology, flooding, drought, groundwater depletion and water security, including New York Times, Los Angeles Times, San Francisco Chronicle, The Guardian, Bloomberg, Financial Times, Sydney Morning Herald, Times of India, 60 Minutes, CNN, Al-Jazeera, Al Jazeera America, CBS, NBC, ABC, Pivot TV, The Economist, Smithsonian, Nature, Science, Pacific Standard, Mother Jones, ClimateWire, Mashable, ThinkProgress, BBC, NPR, etc.

Blog writing

2012-present **National Geographic Water Currents, Contributor**
http://newswatch.nationalgeographic.com/author/jfamigli/
Huffington Post, Contributor
http://www.huffingtonpost.com/jay-famiglietti/

2011-2013 **Water 50/50, Author**
http://blog.ucchm.org

Twitter

2013-present twitter.com/jayfamiglietti

Public talks and panels

See 'Invited Lectures' and http://jayfamiglietti.com/speaking-2/

Current Support:

2014-2017 NASA NEWS, Water Cycle Change from GRACE and NEWS Research, PI, $500,000

2014-2017 JPL Water Initiative, $3,000,000, Lead Scientist

2014-2017 NASA Sea Level, Contribution of Land Water Storage to Sea Level Variations, PI, $1,000,000

2014 University of California, Office of the President, MRPI Program, $300,0000

2013-2016 JPL, GRACE FO Core Science Team, PI, $210,000

2011-2015 NASA GRACE Science Team Recompetition: Terrestrial Hydrology from GRACE, PI, with Co-PI Matt Rodell (NASA/GSFC), $1,000,000

2009-2014 University of California, Office of the President, A U.C. Center for Hydrologic Modeling, (PI), $2,430,000

2009-2014 NSF, A Consortium of Universities for the Advancement of Hydrologic Sciences, Inc., Phase 2 Renewal, (Co-PI, with PI Richard Hooper) $6,000,000, UCI share, $0

Graduate Student Fellowships:

2014-2017 NASA Earth and Space Science Fellowship, Kurt Solander, A SWOT-based reservoir model for climate models, $90,000

2013-2016 NASA Earth and Space Science Fellowship, Jamiat Nanteza, A Remote-Sensing Based Decision Support for East Africa, $90,000

2013-2016 NASA Earth and Space Science Fellowship, Aimee Gibbons, Remote Sensing Water Quality with GRACE, $90,000

2012-2015 NASA Earth and Space Science Fellowship, Zhao Liu, An Explicit Representation of River Networks in a Catchment-based Land Surface Model Framework for SWOT Assimilation, $90,000

2011-2014 NASA Earth and Space Science Fellowship, Sasha Richey, An Index of Global Water Stress that Incorporates GRACE Observations, $90,000

Completed Support and Graduate Student Fellowships:

2009-2013 NASA NEWS, Mass Changes in Earth's Global Water Reservoirs (PI, with Co-PIs Steven Nerem, Don Chambers, Isabella Velicogna), $1,030,000, UCI share $600,000
NASA THP, Scales of Variability of Groundwater Storage, $480,000 (Co-PI with PI Matt Rodell), UCI share $240,000

2012-2013 NSF EarthCube, Linking hydrological models across scales, (Co-I, with PI David Gochis, NCAR), UCI Share, $50,000

2010-2013 NASA Earth and Space Science Fellowship, Karli Anderson, Groundwater remote sensing using GRACE, GPS and InSAR, $90,000

2010-2013 NASA Graduate Student Researchers Program, Alys Thomas, Characterizing Drought Using GRACE, $90,000

2009-2012 NASA Earth and Space Science Fellowship, J. T. Reager, Terrestrial water storage capacity and flood potential using GRACE , $90,000

2008-2012 NASA IDS, The Contribution of Changes in Terrestrial Water Storage to Sea Level Variation, $450,000 (PI, with Co-PI Matt Rodell, NASA GSFC), UCI share, $330,000
NASA GRACE Science Team, Terrestrial Hydroclimatology from GRACE, $450,000 (PI, with Co-PI Matt Rodell, NASA GSFC), UCI share, $350,000
NASA Decision, Integrating Enhanced GRACE Water Storage Data into the U.S. and North American Drought Monitors (Co-I, with PI Matt Rodell), UCI share $60,000

2008-2011 NASA Earth and Space Science Fellowship, Minhui Lo, The Role of Progressively Deeper Soil Moisture and Groundwater in Land-Atmosphere Interaction, $90,000

2008-2009 NSF Hydrological Science, A CUAHSI Scoping Workshop on a Community Hydrological Modeling Platform (CHyMP), $40,000 to CUAHSI (PI)

2007-2010 NASA IDS, Black Carbon Impacts on Cryosphere Climate Sensitivity. $607,000,(Co-I, with PI Charlie Zender, UCI), Famiglietti share, 1 month summer

2005-2008 NASA NEWS, A Study of the First Global Measurements of the Water Cycle (PI), with Co-PIs Steven Nerem, Don Chambers, Isabella Velicogna, $600,000, UCI share $150,000

2005-2008 NOAA CPPA, Basin-Scale Terrestrial Water Storage Variations Using GRACE and Implications for Land Memory Processes (PI), $270,000

2003-2009 NASA REASoN CAN: GRACE Products for Oceanography and Hydrology, (Co-I, with PI Victor Zlotnicki (JPL), $3,120,000, UCI share, $421,000

2005-2008 NASA Earth System Science Fellowship, Gopi Goteti, Explicit Representation of Lakes, Wetlands and Rivers in a Land Surface Model: A Framework for Coupling Terrestrial Biogeochemistry and Hydrology, $72,000

2005-2008 NASA Earth System Science Fellowship, Hassan Syed, Estimating Continental Water Storage Changes and Discharge using GRACE: Implications for Global Mean Sea Level Rise, $72,000

2005-2007 UC Water Resources Center, 2005-2006, Monitoring California Water Resources from Space (PI), $60,000

2004-2006 NASA Earth System Science Fellowship, Dongryeol Ryu, Footprint-Scale Soil Moisture Spatial Variability and Correlation Structure: Implications for Satellite Validation and Hydrologic Data Assimilation, $72,000

2003-2007 NASA IDS: The Contribution of Changes in Terrestrial Water Storage to Sea Level Variation, $400,000 (PI), UCI share, $330,000

NASA SENH: Terrestrial Water Storage Variations Using GRACE: Estimation, Uncertainty and Validation, $540,000, (PI, with Co-PI's Clark Wilson (UT) and Matt Rodell (NASA/GSFC)) UCI share $240,000

NSF MRI: Acquisition of an Earth System Modeling Facility for Coupled Climate,Chemistry, and Biogeochemistry Studies, Co-PI with Charles Zender, PI, UCI, $1,100,100, Famiglietti share $0

2003-2005 NASA THP, 2003-2005 A Virtual Mission to Determine the Feasibility of a Future Surface Water Satellite Mission, NASA Terrestrial Hydrology, Co-PI with Doug Alsdorf, PI, UCLA. UCI share $35,000

2003-2004 A CUAHSI Hydrologic Observatory: Example Using the Neuse River Basin,, Co-I with Ken Reckhow, Duke, PI. Famiglietti share one month summer salary.

2002-2005 NASA GWEC: Catchment-Based Global River Routing Scheme for Climate Models and Assimilation of Streamflow and Altimetry Data, $330,000, (PI, with Co-PI Paul Houser, NASA/GSFC, UCI share $165,000)

2002-2005 NASA Earth System Science Fellowship, Ki-Weon Seo (at UT), Estimating Water Content Variations, Error Analysis, and Validation of GRACE, $72,000

2002-2005 NASA Earth System Science Fellowship, Aaron Berg, Uncertainty in Soil Moisture Initialization and Impacts on Seasonal-to-Interannual Prediction, $72,000

2002-2003 NASA Oceans and Climate: Initialization of NSIPP Land Surface Model Soil Water States for Improved Seasonal-to-Interannual Prediction, $80,000, PI

2000-2003 NASA: Floodplain Modeling Based on Fusion of Polarimetric SAR Interferometry and Laser Altimetry, $300,000, (Co-PI,with Melba Crawford and Bob Schutz, UTCSR, and Jakob VanZyl and Yunjin Kim, NASA/JPL, UCI share $105,000)

1999-2003 NASA: The Role of Soil Moisture Variability in Land-Atmosphere Interaction during SGP97, $225,000, PI

1999-2003 NASA: Optimal Land Initialization for Seasonal Climate Predictions, $600,000 (Co-PI, with Paul Houser, NASA/GSFC) UT/UCI share $300,000

1999-2002 DOE Graduate Research Environmental Fellowship, Wendy Gordon, Role of the Hydrologic Cycle in Vegetation Response to Climate Change: An Analysis Using VEMAP Phase 2 Model Experiments, $66,000

1999-2002 DOE Graduate Research Environmental Fellowship, Marcia Branstetter, An Investigation of the Effects of Continental Runoff on Climate Dynamics Using a Parallel Earth System Model, $66,000

1999-2001 NASA Graduate Student Researchers Program, Karen Mohr, A Study of Land/Atmosphere Interactions in the Development of Mesoscale Convective Systems Using a Coupled Numerical Cloud and Land Surface Process Model, $44,000

1998-2001 NASA Earth System Science Fellowship, Matthew Rodell, Estimating Variations in Continental Water Storage from Satellite Observations of the Time-Dependent Gravity Field,$66,000

1997-2000 NSF: Closing the Global Water Cycle in Fully-Coupled Climate System Models: Terrestrial Hydrology and River Transport for the NCAR CSM, $530,500 (PI, with CO-PI's David Maidment (UT), David Schimel (NCAR) and Charles Vorosmarty (UNH)), UT share $315,000

1996-2000 NASA: New Investigator Award: Multiscale Soil Moisture Variability from Combined Remote Sensing, Modeling, and Observations, $340,000 (PI)

1994-2000 NSF: Graduate Research Traineeships in Hydrology: Role of the Hydrological Cycle in the Coupled Earth System, $562,500 (PI)

1996-1999 NASA Graduate Student Researchers Program, High Performance Computing and Communications Component, Marcia Branstetter, Development of a Parallel Algorithm for Land Surface Hydrology and River Transport in Coupled Climate System Models, $66,000

1994-1998 NASA: Remote Sensing Soil Moisture Using Four-Dimensional Data Assimilation, $222,000 (Co-PI, with Jim Shuttleworth, University of Arizona)

1996-1999 NASA Earth System Science Fellowship, Stephen Graham, A Continental River Routing Algorithm for Global Water Cycle Closure in Coupled Earth System Models, $66,000

Current and Former Student and Staff Supervision

Current graduate student advisees

Hrishi Chandanpurkar (Ph. D., expected 2016), impact of freshwater forcing on global ocean circulation

Aimee Gibbons (Ph. D., expected 2016), GRACE and water quality

Michelle Miro (Ph. D., expected 2017), dissertation research, downscaling GRACE data (Dept. of Civil and Environmental Engineering; now at UCLA)

Jamiat Nanteza (Ph. D., expected 2016), dissertation research, a remote sensing-based decision support system for East Africa

AJ Purdy (Ph.D. expected 2017), dissertation research, high resolution evapotranspiration modeling for California

Kurt Solander (Ph. D., expected 2016), dissertation research, reservoir modeling for land surface models

Current research scientists

David, Cedric (Ph. D., University of Texas at Austin, 2009) Research topic: river transport in large-scale hydrological models (at JPL)

Reager, J.T. (Ph.D., University of California, Irvine, 2012) Research topic: Land surface modeling and global water cycle dynamics (at JPL)

Current postdoctoral advisees

Neeta Bijoor, (Ph. D., University of California, Irvine, 2011) Research topic: Residential irrigation and landscape water balance

Thomas, B. (Ph. D., Tufts University, 2012) Research topic: Surface water-groundwater interactions, Storage-discharge-baseflow relationships

Current undergraduate advisees

Current staff supervision

Graduated students

James Anderson, M.A., 1996, co-supervised with Prof. Phil Bennett. Thesis title, "Nonpoint Source Pollution by Organochlorine Pesticides in the Lavaca-Navidad Watershed, Texas," University of Texas at Austin. Current employment, Program Manager, Department of Justice, Washington, DC.

Kwabena Asante, Ph. D., 2000, co-supervised with Prof. David Maidment. Dissertation title, "A Comparison of Grid-Based and Watershed-Based Continental-Scale River Routing Schemes," University of Texas at Austin. Current employment, self-employed hydrologic scientist and GIS consultant.

Aaron Berg, M. S., 2001; Ph. D., 2003. M. S. thesis title, "The Sensitivity of Land Surface Model Simulations to Bias Correction of the European Centre for Medium-Range Weather Forecasts Reanalysis," University of Texas at Austin. Ph. D. dissertation title, "Modeling and Analysis of Regional and Global Soil Moisture Variations," University of California, Irvine. Current employment, Associate Professor, University of Guelph, Department of Geography.

Marcia Branstetter, Ph.D., 2001. Dissertation title, "Development of a Parallel River Transport Model and Applications to Climate Studies," University of Texas at Austin. Current employment, research scientist, Oak Ridge National Laboratory, Computer Science and Mathematics Division, Climate Dynamics Group

Stephanie Castle (M.S.U.R.P/M. S. C. E., 2013) thesis research, managed water balance of California

Johanna Devereaux, M.S., 1998. Thesis title, "A Study of Soil Moisture Variability Within Remote Sensing Footprints," University of Texas at Austin. Current employment, Technical Writer, National Instruments

Wendy Gordon, Ph. D., 2003, co-supervised with Prof. Norma Fowler. Dissertation title, "Climate change, hydrology, and ecological models: intercomparison and validation," University of Texas at Austin. Current employment, Ecologist, Texas Commission on Environmental Quality

Gopi Goteti, (Ph. D., 2008), dissertation title, Methods for incorporating surface water routing in land surface models, University of California, Irvine. Current employment, Flood Modeler, Risk Management Solutions, San Francisco, CA

Stephen Graham, Ph.D., 2000. Dissertation title, "The Role of Continental Surface Waters in Land-Atmosphere and Land-Ocean Interaction," University of Texas at Austin. Current employement, Research associate, Dept. of Geography, University of Minnesota, Duluth

Michael Harren, M.A., 1996, co-supervised with Prof. Phil Bennett. Thesis title, "Source and Distribution of Hydrocarbons in the Gaines Creek Watershed, Austin, TX," University of Texas at Austin.

Sally Holl, M.S., 2004. Thesis title, "The Sensitivity of Land Surface Model Simulations to Bias Reduction of ERA-15 Radiation Forcing," University of Texas at Austin. Current employment, USGS, Austin, TX

John Horn (M.A. , 2013)

Collin Lawrence (Ph. D., 2014), dissertation research, contribution of alpine glacial melt to sea level rise

Huidong Liu (Ph. D., 2013), Dissertation title, Lakes in land surface models: Simulation and validation using satellite measurements

Zhao Liu (Ph. D., expected 2014), Dissertation title, A catchment-based river transport model, Current employment, FM Global Insurance, Boston, MA

Minhui Lo, Ph.D., 2010, dissertation title, 'The Role of Groundwater in Hydrological Processes and, Memory, University of California, Irvine. Curent employment, Postdoctoral researcher, UC Center for Hydrologic Modeling

Eric McWilliams (M. A., 2013)

Karen Mohr, Ph.D., 2000. Dissertation title, "The Role of Surface-Atmosphere Interaction in the Development of Mesoscale Convective Systems," University of Texas at Austin. Current employment, Research Scientist, Mesoscale Atmospheric Processes Branch, NASA Goddard Space Flight Center

Mary Lear, M. S., 2000, co-supervised with Prof. David Maidment. Thesis title, "Scaling River Network Extraction from High to Low Resolution Global Digital Elevation Models," University of Texas at Austin. Current employment, Water Resources Engineer, Pentec Environmental, Seattle, WA

Karli Ouellette (Ph. D., 2013), Dissertation title,Hydrologic applications of GPS site-position observations in the Western U.S.

Matthew Rodell, Ph.D., 2000. Dissertation title, "Estimating Continental Water Storage Using Satellite Observations of Time-Variable Gravity," University of Texas at Austin. Current emplotment, Research Scientist, Hydrological Sciences Branch, NASA Goddard Space Flight Center, Greenbelt, MD.

J.T. Reager, Ph. D., 2012, Dissertation title, terrestrial water storage capacity and flood potential from GRACE, Terrestrial water storage across scales: Applications of the GRACE satellite mission for global hydrology, Current employment, Research Scientist, NASA Jet Propulsion Laboratory

A. Sasha Richey, M. S., 2012 (Civil and Environmental Engineering), Thesis title, "Quantifying Groundwater Stress with Total Water Volumes and GRACE." Current employment, Ph.D. student, U.C. Irvine, Civil and Environmental Engineering (Ph. D., 2014), dissertation title, A GRACE-based characterization of global groundwater stress (Dept. of Civil and Environmental Engineering),

James Rudnicki, M.A., 1996. Thesis title, "Process Controls on Hillslope-Scale Soil Moisture Variability: Rattlesnake Hill, TX," University of Texas at Austin. Current employment, Bush and Motes, law firm, Arlington, Texas.

Dongryeol Ryu, Ph.D., 2006, Dissertation title, "Footprint-Scale Soil Moisture Spatial Temporal Variability and Implications for Satellite Validation." Current employment, Associate Professor, University of Melbourne, Australia

Tajdarul Hassan Syed, Ph. D., 2007, Dissertation title, "Remote Sensing of Terrestrial Water Storage: Implications for Continental Freshwater Discharge Estimation." Current employment, Assistant Professor, India School of Mines University, Dhanbad

Alys Thomas (Ph.D., 2014), Dissertation title, A GRACE-Based Characterization of Hydrological Drought

Former undergraduate advisees

Karen An, January 2012-June 2013, urban domestic water use; GRACE and groundwater stress

David Blum, UCSB, June 2011-Dec. 2011, Continental hydrogeology

Rachel Druffel-Rodriguez, Loyola-Marymount University, Summer, 2011, Estimating global groundwater storage

Aimee Gibbons, Chemistry major, Winter-Spring 2011, Terrestrial water storage changes in China

Royce Rivera, Earth and Environmental Science major, Summer-Fall, 2010, Terrestrial water storage changes in Australia

Katalyn Voss, Georgetown University, Research Specialist, Summer, 2010 and B. S. Thesis, Fall 2010-Spring, 2011, Groundwater depletion in Turkey and the Middle East

Stephanie Ho (B.S. Hon., 2009), Thesis title, "Total Water Storage Change Over the San Joaquin and Sacramento River Basins: Comparing GRACE and Observational Data, " currently Ph. D. candidate, University of Southern California

Former NSF REU advisees

Amabella Lambinicio, REU, summer 2012, contribution of groundwater depletion to global mean sea level rise

James Bethune, Summer, 2009, Carleton College, Groundwater depletion in California's Central Valley

Katalyn Voss, Summer, 2009, Georgetown University, A global index of groundwater scarcity

Karli Anderson, Summer, 2007, University of Minnesota, Terrestrial water storage changes in California and the western United States

Brain Kiel, Summer, 2006, Ohio State University, Basin-scale trends in terrestrial water storage

Lindsay McKenna, Summer, 2006, Brown University, Mass changes in Earth's global water reservoirs

Former Postdoctoral advisees

Ray Anderson (Ph. D., University of California, Irvine, 2010) Research topic: Remote sensing of evapotranspiration

Caroline de Linage (Ph. D., Universite de Strassbourg, 2008) Research topic: Gravity variations and hydrology

Frédéric Frappart (Ph.D., University Paul Sabatier, 2006) Research topic: remote sensing of terrestrial and global hydrology, surface water remote sensing using altimetry

Wenje Hwu (Ph. D., Arizona, 1998): January, 1998-September, 1999. Research topic: Role of soil moisture variability in land-atmosphere interaction using SGP97 remotely-sensed observations and the MM5 Mesoscale Meteorological Model.

Byunghyun Kim (Ph. D., Seoul National University, 2010) September, 2011-Auguest, 2014, Research topic: High-resolution hydrodynamic modeling of floodplain inundation

Hyungjun Kim (Ph. D., University of Tokyo, 2010) September, 2010– April 2012, Research topic: Land surface modeling

MinHui Lo, (Ph. D., University of California, Irvine, 2010), June 2010-March 2012, Research topic: Land Subsurface-Atmosphere Interactions

Corinna Prietzsch (Ph. D., Potsdam, 1998): July, 1998 – July, 1999. Research topic: Characterization of spatial-temporal variability in remotely-sensed soil moisture images from SGP97.

Reager, J.T. (Ph.D., University of California, Irvine, 2012) Research topic: Land surface modeling and global water cycle dynamics, Current employment, Research Scientist, NASA Jet Propulsion Laboratory, California Institute of Technology

Tajdarul Hassan Syed (Ph. D., U.C. Irvine, 2007) Research topic: GRACE-based estimates of continental freshwater discharge and the contribution of terrestrial water storage variations to sea level rise. Current employment, Assistant Professor, Indian School of Mines, Dhanbad

Pat J-F. Yeh (Ph.D., MIT, 2002) Research topic: terrestrial water storage variations, groundwater remote sensing. Current employment, Associate Professor, University of Tokyo

Former staff supervision

Callie Brazil, UCCHM Communications and Outreach Coordinator, April 2013-June 30, 2014

Stephanie Castle, UCCHM Data Specialist, July 2009-September 2011, UCCHM Junior Specialist, July 2013-August 2014

Cedric David, UCCHM Project Scientist, July 1, 2012 – August 31, 2014

Rachel Druffel-Rodriguez, UCCHM Junior Specialist, July 2012-June 2013

Jake Edman, UCCHM, Junior Specialist, July 2011-June 2012

Stephanie Ho, UCCHM, Junior Specialist, April 2011-August 2011

Karan Kaushik, UCCHM, Technical Assistant, April 2011-December 2011

Hyungtae Kim, UCCHM Junior Specialist, July 2012-August 2014

Roxanne Murillo, UCCHM Outreach and Commuications Intern, July 2012-November 2012

Katalyn Voss, UCCHM Water Policy Fellow, July 2010-June 2014

Jennifer Wilkens, UCCHM Office Manager, July 2010-June 2014

Former Sabbatical Visitors

Prof. Kang-Kun Lee, 2009-2010, UCCHM Sabbatical Visitor, Seoul National University